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GUIDES TO THE PROGNOSIS IN EPILEPSY, WITH REMARKS ON THE CURABILITY OF THE DISEASE; INCLUDING REPORTS OF THIRTY-FOUR CASES.

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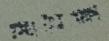
WILLIAM P. SPRATLING, M. D., SONYEA, N. Y.

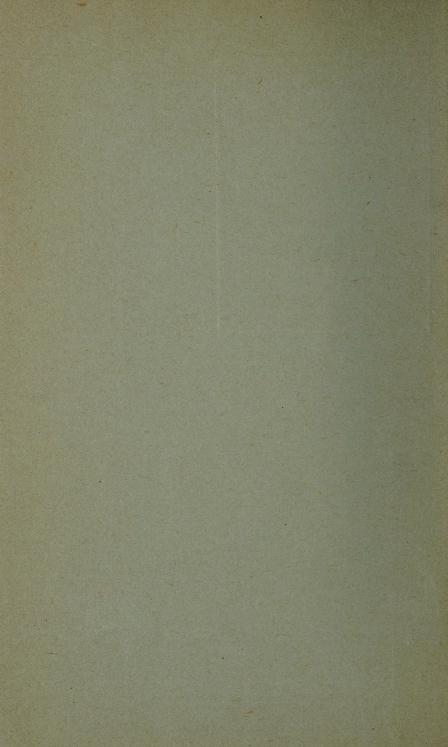
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GUIDES TO THE PROGNOSIS IN EPI-LEPSY, WITH REMARKS ON THE CURABILITY OF THE DISEASE; INCLUDING REPORTS OF THIRTY-FOUR CASES.\*

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SONYEA, N. Y.,

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YORK COUNTY MEDICAL SOCIETY, AMERICAN MEDICOPSYCHOLOGICAL ASSOCIATION, ROCHESTER PATHOLOGICAL
SOCIETY, BUFFALO ACADEMY OF MEDICINE, ETC.

After an experience of fourteen years<sup>1</sup> in the daily care and treatment of 1,800 cases of epilepsy in persons of all ages, types, conditions, and degrees of duration of the disease, I feel justified in reaching these conclusions regarding its prognosis and cure:

First. Epilepsy is curable in from 5 per cent. to 10 per cent. of all cases.

Second. It requires, as a rule, a long continued course of treatment—never less than two to three

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<sup>\*</sup> Read before the New York Academy of Medicine on January 7, 1904.

<sup>&</sup>lt;sup>1</sup> Nine years of this experience was acquired by the writer as chief physician at the Craig Colony for Epileptics, at Sonyea,

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man was a series with the

years—carefully mapped out and executed to the letter, not only along one, but along many lines, to effect a cure.

Third. The failure to secure better results, generally, in the treatment of this disease must frequently be laid to the failure to treat the individual and his disease as a unit, and to treat them both along the very broad, comprehensive, and unyielding lines they both require.

Fourth. The drug treatment of epilepsy alone, while invaluable in many cases and of some use in every case, often fails completely to meet the most important requirements.

Fifth. Guides to the prognosis in epilepsy are always uncertain and unsatisfactory until treatment has been in operation from six to nine months, and in some cases a year or longer.

With these conclusions in view, and in order that I might present the subject it is my pleasure to discuss before you this evening in as lucid a manner as possible, I will confine my remarks largely to the interesting and important facts grouped about a series of thirty-four cases of this widely prevalent and very obstinate disease that have been cured at the Craig Colony up to this time.

The subject of epilepsy is far too vast to bring into this brief discussion anything bearing on its treatment. We must confine ourselves just now

N. Y.; five years as first assistant physician in the New Jersey State Hospital, at Morris Plains, an institution in which a large number of epileptics were cared for at that time (1887 to 1892); while it was also the writer's privilege to spend some time as a resident of the German Colony for Epileptics, at Bielefeld, for the purpose of studying the methods in vogue in that very 'uccessful institution, and their results.

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solely to results, and to the guides that may help to point them out in advance; and if I here express it as my unqualified belief that the methods in use at the Craig Colony are the best, or that we are striving to make them the best, yet devised for the treatment of the epileptic and his disease; and that our system of records prior to, and after, the patient comes under our care, is as complete as we have been able to this time make it, I do so, not with any degree of pride in such facts, but expressly to show that the gratifying results I am able to report tonight were neither carelessly attained nor haphazardly compiled.

We persistently follow cases for years; we instantly record every seizure that occurs on the colony, writing down its type, its duration, and its severity; we use manifold drugs, foods of designated kinds; forms of occupation suitable for all who are capable of it; demanding rest in some cases and in others healthy fatigue; and we measure the degree of success we attain by our ability to apply well rounded and complete forms of treatment to individuals whose visible malady is only a symptom complex, and who often require the most complex forms of treatment, covering several years' time.

Personally, I am so sure that epilepsy is curable that I am forced to feel that those (if there are any) who doubt or deny this fact, do so without having had opportunity for witnessing the results that follow lines of treatment, broadly conceived, faithfully executed, and kept up as long as the nature of the malady requires.

In the condensed report of the thirty-four cases

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that follow will be found in some detail the essential facts of interest that are dealt with in summarized form further on.

Case 4 (Colony No.).—Male; age at onset of epilepsy, ten years; type of epilepsy, petit mal, occasionally grand mal; duration of the disease on admission, sixteen years; attacks occurred at rate of twelve to fourteen a day prior to patient's admission to the colony; total approximate number of attacks before admission, 50,000 to 60,000; mental condition, impaired, improvement noted in it shortly after patient came under treatment; aura, "confused and dizzy feeling," some moments before the fit appeared. Duration of treatment at the colony, two years and three months. Length of time patient had remained free from epilepsy on January I,

1904, seven years and a half.

This patient had previously been mentioned in colony reports as having had approximately 25,000 seizures before his admission to the colony. A recent and more careful inquiry into his previous history indicates that he had a much larger number than that. He was admitted to the Utica State Hospital on October 2, 1884, and had, according to the records, during that month, an average of thirteen fits daily, and during the November following he had twelve fits daily. He was discharged unimproved on December 7th, the same year. He was next admitted to the St. Lawrence State Hospital on July 7, 1894. A note in the hospital records on July 10, 1894, is as follows: "Patient has had several convulsions each day since admission;" August 10th, "Continues to have convulsions frequently;" August 18th, "Has had convulsions in rapid succession, stupid and weak." Discharged unimproved, October 18, 1894.2

<sup>&</sup>lt;sup>2</sup>I am indebted to Dr. Palmer and Dr. Hutchings, superintendents at Utica and Ogdensburg, for notes in this case.

I present this patient's record of seizures while he was at the colony. He had 222 in all, all save one occurring during the first three months of his residence there; an isolated attack, due to a preventable indiscretion, occurring after he had been at the colony four months.

Between the 12th of June, 1896 (the date on which he left Sonyea), and January 1, 1904, he had no attacks. Four years after leaving Sonyea, he wrote me: "No manifestation of the old disease has ever recurred since my leaving Sonyea. Am still employed at the same office, and have not missed a day since last writing you." Again, at the end of five years, he wrote: "I have practically forgotten that I was ever obliged to become a patient at the colony, for my health remains perfect in every way, enabling me to attend to my daily duties in the office regularly, without knowing what sickness means." A month ago—seven years and a half after his last attack-he wrote me: "I am very well. Should much enjoy looking over the 'old stamping ground' at Sonyea, where I received such a blessing."

This man now having gone more than seven years without an attack, I regard him as cured of the epilepsy he suffered from for sixteen years before he entered the colony. Should he fail, however, to live at home as he was taught and made to live at Sonyea, he may possibly suffer a second attack. I see no reason why repeated attacks of epilepsy may not follow the reapplication of causes, any more than why a person may not have two or more attacks of any other disease after exposure to the influences that produce them.

Case 17 (Colony No.).—Female; age at onset of epilepsy, fifteen years; type of epilepsy, grand mal; duration on admission, two years; attacks occurred at the rate of one every two weeks prior to admission; total approximate numbers of attacks before entering the colony, 12; number after entering, 2; duration of treatment, two years and a half; mental condition, impaired; aura, none. Length of time patient was free from epilepsy to January 1, 1904, three years and a half.

Case 50 (Colony No.).—Female; age at onset of epilepsy, six years; type of epilepsy, grand mal and petit mal; duration on admission, twenty-seven years; frequency of attacks before admission, daily; approximate total number of attacks before entering the colony, 9,758; number after entering the colony, none; mental condition, fair; aura, none. Duration of treatment, two years and a half; length of time free from attacks to January 1, 1904, five years and two months.

CASE 90 (Colony No.).—Male; age at onset of epilepsy, fourteen years; type, grand mal; duration on admission, two years; frequency of attacks before entering the colony—at first, six months apart; later, and at time of admission, several a month; total approximate number of attacks before entering the colony, 50; number after entering the colony, 30; mental condition, good. Patient a reformatory subject, vicious, criminally inclined; aura, epigastric. Duration of treatment, two years and four months; length of time free from attacks to January 1, 1904, five years and three months.

Case 93 (Colony No.).—Male; age at onset of epilepsy, fifty-seven years; type, grand mal; duration on admission, one year; frequency of attacks before entering the colony, I a month; approximate total number before entering the colony, 12; number after entering the colony, none; mental condi-

tion, somewhat impaired; aura, none. Duration of treatment, two years and four months; length of time free from epilepsy to January 1, 1904, five years and two months.

CASE 138 (Colony No.).—Male; age at onset of epilepsy, sixteen years; type, grand mal; duration on admission, twenty-five years; frequency of attacks before entering the colony, once a week; approximate total number before entering the colony, 1,300; number after entering the colony, none; mental condition, not impaired by epilepsy—intelligence naturally of low order; aura, "flashes of light; then darkness." Duration of treatment, a year and a half; length of time free from epilepsy to January 1, 1904, five years and nine months.

CASE 157 (Colony No.).—Female; age at onset of epilepsy, nineteen years; type, grand mal; duration on admission, one year; frequency of attacks before entering the colony, only four, all told—the last, five weeks before admission; number after entering the colony, 1; mental condition, good—a little depressed at times; aura, none. Duration of treatment, one year and nine months; length of time free from attacks to January 1, 1904, five years and two months.

Case 195 (Colony No.).—Male; age at onset of epilepsy, eleven years; type, grand mal; duration on admission, four years; frequency of attacks before entering the colony, 2 a week; approximate total number before entering the colony, 200; number after entering the colony, 109; mental condition, fair—no impairment due to epilepsy; aura, epigastric. Duration of treatment, two years and four months; length of time free from epilepsy to January 1, 1904, four years and a half.

CASE 281 (Colony No.).—Male; age at onset of epilepsy, thirty years; type, grand mal; duration

on admission, ten years; frequency of attacks before admission, 2 a month; approximate total number before entering the colony, 250; number after entering the colony, 11; mental condition, good; aura, none. Duration of treatment, five years; length of time free from attacks to January 1,1904, four years and a half.

CASE 293 (Colony No.).—Male; age at onset, eight years; type, grand mal and petit mal; duration on admission, thirty-six years; frequency of attacks before entering the colony, 12 a week; approximate total number of attacks before admission, 36,000; number after entering the colony, 14; mental condition, good; aura, none. Length of time free from attacks to January 1, 1904, three years and seven months.

CASE 325 (Colony No.).—Female; age at onset of epilepsy, seven years; type, grand mal; duration on admission, seven years; frequency of attacks before entering the colony, once a month during year preceding admission, with the exception of the last two months; approximate total number of attacks, II; number of attacks after entering the colony, none; mental condition, good; aura, none. Duration of treatment, two years; length of time free from attacks on January I, 1904, five years and nine months.

CASE 357 (Colony No.).—Male; age at onset of epilepsy, five years; type, grand mal; duration of epilepsy, twenty years; frequency of attacks before entering the colony, every month; approximate total number in that time, 240; number after admission, none; mental condition, good except for some bromide stupor; aura, epigastric. Duration of treatment, one year; length of time free from attacks to January 1, 1904, five years and a half.

CASE 364 (Colony No.).—Female; age at onset of epilepsy, thirteen years; type, grand mal

and petit mal; duration of epilepsy on admission, two years; frequency of attacks before entering the colony—at first, 2 to 3 in twenty-four hours; at time of admission, 15 to 23 in twenty-four hours; approximate total number of attacks in that time, 4,300; number after entering the colony, 2,830; mental condition, some temporary impairment; aura, "queer feeling in the arms." Duration of treatment, three years and a half; length of time free from attacks to January 1, 1904, four years and two months.

Case 370 (Colony No.).—Female; age at onset, twenty-one years; type, grand mal; duration on admission, one year; frequency of attacks before entering the colony, three only during ten months prior to admission; number after entering the colony, 4; mental condition, good; aura, none. Duration of treatment, five years and six months; length of time free from attacks to January 1, 1904, two years and seven months.

CASE 382 (Colony No.).—Male; age at onset of epilepsy, eight years; type, grand mal and petit mal; duration on admission, twelve years; frequency of attacks before entering the colony, I a week; approximate total number in that time, 600; number after admission, none; mental condition, congenitally weak—no impairment due to epilepsy; aura, none. Duration of treatment, two years and two months; length of time free from epilepsy to January I, 1904, five years and four months.

CASE 446 (Colony No.).—Male; age at onset of epilepsy, seven years; type, grand mal; duration on admission, seven years; frequency of attacks during that time—at first, weekly; then once a month; approximate total number of attacks before entering the colony, 375; number after entering the colony, none; mental condition, fair; aura, headache. Duration of treatment, three years and a half; length of

time free from epilepsy to January 1, 1904, five years.

Case 452 (Colony No.).—Male; age at onset of epilepsy, eight years; type, grand mal; duration on admission, fourteen years; frequency of attacks before entering the colony—at first, one a day; then several in one night; approximate total number in that time, 5,200; number after entering the colony, 204; mental condition, insane, pronounced delusions of persecution that lasted for two months after admission; aura, none. Duration of treatment, three years; length of time free from attacks to January 1, 1904, five months. He left the colony in January, 1902, and was readmitted four months later. From April 30 to August 8, 1903, he had 644 attacks. Has now gone five months without any.

This case typically illustrates the type of epileptic who must live in a certain manner to escape the accentuations of the disease. He may always bear a strong liability to the disease, but he need not have epileptic convulsions, so long as he lives in a way to avoid them. Freedom from epilepsy by right living should be his perpetual aim.

CASE 480 (Colony No.).—Male; age at onset of epilepsy, nine years; type, grand mal; duration on admission, ten years; frequency of attacks before entering the colony, I every six weeks, about; approximate total number before admission, 180; number after admission, 2; mental condition, enfeebled; aura, dizziness, numbness in left (paralyzed) side. Duration of treatment, four years and four months; length of time free from attacks to January I, 1904, two years and nine months.

CASE 489 (Colony No.).—Female; age at onset of epilepsy, eight years; type, grand mal; duration of epilepsy on admission, seven years; frequency of attacks before entering the colony—at first, once a year; during the past three years, 3 to 5 a year; approximate total number of attacks before entering the colony, 20; number after admission, 4; mental condition, unimpaired; aura, none. Duration of treatment, three years and eight months; length of time free from attacks on January I, 1904, three years and four months.

Case 517 (Colony No.).—Female; age at onset of epilepsy, nineteen years; type, hysteroepilepsy, with occasional grand mal attacks; duration of epilepsy on admission, one year; frequency of attacks before entering the colony—at first daily; then every two to three days; approximate total number before entering the colony, 200; number after entering the colony, 37; mental condition, unimpaired—patient very emotional; aura, none. Duration of treatment, three years; length of time free from attacks on January I, 1904, three years and five months.

Case 528 (Colony No.).—Male; age at onset of epilepsy, three years; type, grand mal and petit mal; duration of epilepsy on admission, six years and a half; frequency of attacks before entering the colony, "several daily;" approximate total number before entering the colony, 2,000; number after entering the colony, 140; mental condition when admitted, somewhat enfeebled; nature of aura, epigastric nausea. Duration of treatment, four years and one month; length of time free from attacks on January 1, 1904, two years and six months.

CASE 534 (Colony No.).—Female; age at onset of epilepsy, twenty-one years; type, grand mal; duration of epilepsy on admission, eleven years; frequency of attacks before entering the colony—I attack in every three to five weeks; approximate total number of attacks before entering the

colony, 120; number after entering the colony, 23; mental condition, memory impaired—forgetful; aura, patient exceedingly irritable for some time before attacks. Duration of treatment, four years and eleven months; length of time free from attacks on January 1, 1904, two years and nine months.

CASE 582 (Colony No.).—Male; age at onset of epilepsy, eight years; type, grand mal; duration of epilepsy on admission, two years; frequency of attacks before entering the colony, daily; approximate total number of attacks before entering the colony, 730; number after entering the colony, 644; mental condition when admitted, imbecile; aura, none. Duration of treatment, four years; length of time free from attacks on January 1, 1904, two years.

Case 599 (Colony No.).—Male; age at onset of epilepsy, eighteen years; type, petit mal; duration of epilepsy on admission, two years; frequency of attacks before entering the colony, 4 to 5 daily; approximate total number of attacks before entering the colony, 3,500; number after entering the colony, 884; mental condition when admitted, good; aura, "tickling sensation confined to the neck." Duration of treatment, two years and a half; length of time free from attacks on January 1, 1904, three years and two months.

CASE 63I (Colony No.).—Male; age at onset of epilepsy, two years and a half; duration of epilepsy on admission, thirteen years and a half; frequency of attacks before entering the colony—first two attacks, one year apart; between the ages of two years and a half and twelve years had an attack on an average of every six weeks; between the ages of twelve to fifteen years had 3 attacks; approximate total number of attacks before entering the colony, II2; number after entering the colony, II; mental condition when admitted, impaired; aura, numbness

in paralyzed side (hemiplegic). Duration of treatment, three years and nine months; length of time free from attacks on January 1, 1904, three years and one month.

Case 662 (Colony No.).—Male; age at onset of epilepsy, five days; type, grand mal; duration of epilepsy on admission, twenty years; frequency of attacks before entering the colony—at first, "very frequent;" at the time of admission they were occurring at the rate of I every five or six months; approximate total number of attacks before entering the colony, impossible to ascertain with any degree of accuracy; number after entering the colony, none; mental condition, feeble minded; aura, none. Duration of treatment, three years and nine months; length of time free from attacks on January I, 1904, three years and nine months.

CASE 817 (Colony No.).—Male; age at onset of epilepsy, fifteen years; type grand mal and petit mal; duration on admission, five years; frequency of attacks before entering the colony, every four to five months; approximate total number of attacks before entering the colony, 15; number after admission, 1; mental condition when admitted, good; aura, dizziness. Duration of treatment, one year and eight months; length of time free from attacks on January 1, 1904, three years and six months.

CASE 819 (Colony No.).—Male; age at onset of epilepsy, four years; type, grand mal; duration of epilepsy on admission, eight years; frequency of attacks before entering the colony—indefinite; had several during infancy; approximate total number before entering the colony, indefinite; number after admission, 4; mental condition, imbecile; aura, none. Duration of treatment, three years and six months; length of time free from attacks on January 1, 1904, three years.

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1900-42 to 89 a month-9 during 1901, and 1 only during 1902. He later made a complete recovery.

CASE 847 (Colony No.).—Male; age at onset of epilepsy, five years; type, petit mal; duration of epilepsy on admission, twenty years; frequency of attacks before entering the colony, I a month; approximate total number of attacks before entering the colony, 240; number after admission, none; mental condition on admission, feeble minded; aura, none. Duration of treatment, three years and three months; length of time free from attacks on January I, 1904, three years and three months.

Case 901 (Colony No.).—Male; age at onset of epilepsy, two years; type, grand mal and petit mal; duration on admission, six years; frequency of attacks before entering the colony—at first, 3 to 4 a month; later, I every three or four days; approximate total number of attacks before admission, 200; number after admission, 7; mental condition, good; aura, epigastric. Duration of treatment, two years and eleven months; length of time free from attacks on January I, 1904, two years and one month.

CASE 957 (Colony No.).—Male; age at onset of epilepsy, thirty-five years; type, petit mal; duration of epilepsy on admission, six years; frequency of attacks before entering the colony, I a month; approximate total number of attacks before admission, 72: number after admission, none; mental condition, good; aura, "a cold feeling." Duration of treatment, two years and nine months; length of time free from attacks on January I, 1904, two years and nine months.

CASE 977 (Colony No.).—Male; age at onset of epilepsy, nine years; type, grand mal; duration of epilepsy on admission, ten years; frequency of attacks before entering the colony—at time of admission, I every three months; at first, oftener than that; approximate total number of attacks before admission, 40; number after admission, I; mental condition, feeble minded; aura, vertigo. Duration

of treatment, two years and nine months; length of time free from attacks on January 1, 1904, four years and four months.

CASE 1,156 (Colony No.).—Male; age at onset of epilepsy, five years and a half; type, grand mal; duration of epilepsy on admission, three years and a half; frequency of attacks before entering the colony—first 2 attacks thirteen months apart; 3 four months later, then none for fifteen months; had 2 attacks in August, 1901; approximate total number of attacks before entering the colony, 5; number of attacks after entering the colony, 1; mental condition, good; aura, none. Duration of treatment, one year and ten months; length of time free from attacks on January 1, 1904, one year and ten months.

CASE 1,250 (Colony No.).—Male; age at onset of epilepsy, nine years; type, grand mal; duration of epilepsy on admission, sixteen years; frequency of attacks before entering the colony—at first they were six weeks apart; at time of admission they were eight weeks apart; approximate total number of attacks before entering the colony, 112; number after entering the colony, 1; mental condition, good; aura, vertigo. Duration of treatment, one year and six months; length of time free from attacks on January 1, 1904, fourteen months.

The first point of interest in connection with these cases is the age at which the disease first developed.

In 20, or 59 per cent., it developed before the tenth year; in 9, or 26½ per cent., between the tenth and twentieth years; and in 4, or 12 per cent., between the twentieth and fortieth year (the majority of these occurring before the thirtieth year), while it commenced in 1 only after the fortieth year.

But, before ascribing any prognostic value to youth, we must remember that epilepsy is essentially

an early life disease; that fully eighty per cent. or more of all cases occur before the twentieth year, and that recoveries are, therefore, simply more frequent at the age the disease itself most frequently arises.

At the same time there is another factor in the successful treatment of young epileptics, that was first observed by Gowers, and in which I have come fully to agree, and that is that the best results can often be secured in cases in which heredity is supposed to have been most active as a cause. A knowledge of the handicap of heredity seems not infrequently to make the treatment of the young epileptic doubly cautious and exacting, constantly keeping him free from influences likely to stir his epileptic predisposition to action.

The second point of interest is found in the type of epilepsy these patients suffered from. Twenty-three of them had grand mal attacks alone; 7 had grand mal and petit mal attacks combined; 3 petit mal only; while I had hysteroepileptic convulsions of great violence, with occasional attacks of grand mal, uncontaminated by hysteria.

It is noted that no case of psychic epilepsy appears among them. The best reason for this, perhaps, is found in the comparative rarity of this form of disease. In 1,325 cases studied at Sonyea, only 4 were classed as psychic. At the same time I do not regard even this form of epilepsy incurable in some cases. Its cure is least to be expected in those who show early or marked intellectual impairment or who have a very striking intellectual aura.

We also note the absence of cases of Jacksonian epilepsy, a form of the disease generally regarded as quite curable. A probable reason for this is that we get so few patients at Sonyea, whose disease is not chronic (less than 11/2 per cent. of them have had the disease less than a year). In the same 1,325 cases referred to above there were 9 Jacksonian epileptics only, and the majority of these were due to organic causes, such as cerebral hæmorrhage, of too long standing to admit the possibility of a cure. Fits that are localized in the beginning, and called Jacksonian, may later on pass into a more general form of the disease, losing their greater possibility of cure by reason of such transformation. Of all the forms of epilepsy, the Jacksonian type demands the earliest treatment.

The next point of interest, and one of great value, is the duration of the treatment.

It is the epileptic's misfortune that the length of time he is kept under treatment is often far too short to be of effective and lasting value.

The shortest period of treatment in any of the 34 cases under discussion was twelve months, only one being as brief as that, the short treatment in that being unavoidable.

The longest period was sixty-six months—five years and a half—while the average for the whole number was thirty-five months and a quarter—substantially three years.

Persistency in treatment is always to be commended. The patient and his friends should be actively impressed with its necessity. Good results are sometimes delayed for several months, or even years, to finally appear in an abrupt but very gratifying manner.

This is shown in case 582, in which the patient had 42 to 89 seizures each month during the first year, aggregating 633 in that time, and in spite of the most persistent treatment, quite suddenly the attacks underwent a marked decrease early in the second year, during which nine only occurred; while during the third and last year of the disease there was but a single fit.

The duration of the disease when the patient comes under treatment, is a point of some prognostic value.

In the cases under discussion, 13 of them had suffered from epilepsy from one to five years; 10 from five to ten years; 7 from ten to twenty years; while 4 had had it twenty years or more.

These figures appear to indicate that while the degree of chronicity should have some weight in arriving at a prognosis, it cannot be held that even marked chronicity should be regarded as a cause of failure to cure. While it is generally true that the more frequent the attacks, and the greater their number in the aggregate, the less favorable the prognosis, because of the generally disastrous effects the attacks are likely to produce, there are notable exceptions to it. Take Case 4, for instance, in which there were from 50,000 to 60,000 seizures during the sixteen years of this man's illness, yet he finally made a complete recovery.

Another patient (No. 50) had 9,758 seizures during twenty-seven years; a third (No. 364) had 4,300 during the two years preceding his admission to the

colony, and 2,830 after admission. Both of these recovered fully later on.

On the other hand, infrequent attacks do not necessarily argue a favorable termination, and in my experience many such cases require a longer treatment than do the severer ones.

Case 489 had only 20 attacks during seven years before coming to Sonyea, and 4 after admission; a second case (No. 1,156) had only 5 attacks in three-years and a half before, and 1 after admission.

The patients who had 50,000 to 60,000, and 9,758 seizures respectively, were cured in two years and a half, while those who had 20 and 5 attacks respectively had to remain under treatment three years and a half.

I have sometimes thought that there must be some relationship between the *facile* expression of attacks, and the ease with which they yield to proper treatment, on the one hand, and the attacks that appear only under great provocation and at long intervals, and the stubbornness with which they resist the most persistent efforts to dislodge them.

There is also this about some occasional attacks to which I have previously called attention: they seem to appear in selected cases, at long intervals, as expressing the acme of some morbid state from which the patient must find relief or become insane. Time and again I have seen this occur, in some cases over and over again, during the past seven to eight years. It must be either an occasional epileptic convulsion, or insanity of an active and disorganizing kind. And insanity usually comes in the end.

It is, therefore, never safe, in my opinion, to tell?

a patient with positiveness during the first months or year of his treatment, that his chances of recovery are good because his attacks are so infrequent.

Aura in Prognosis.—Eighteen, or a fraction over 50 per cent. of the cases under review, were subject to an aura of some kind, and it is worthy of note that all save three were sensory in type. Five of the 18 had an epigastric aura, the rest being disturbances in sensation in some other part of the body.

It is impossible, at this time, to ascribe to the aura anything of significant value in the prognosis of epilepsy.

The Influence of Sex.—Twenty-five of the 34 cases were in males, and 9 in females, but we must not hastily conclude that the prognosis is therefore better in males than in females.

It is well established that more males than females have the disease, in the ratio of 20 of the former to 16 of the latter in every hundred. I have established this fact through a study of 68,040 cases in this country and in Europe, running back to 1854. Of this number 36,865 were males, 31,175 females.

A local cause of the disproportion in the sex of those cured at Sonyea has been the constant treatment of 150 more males than females, on account of greater accommodations for the former.

Turner, Reynolds, Gowers, and others agree that while the disease seems capable of arrest oftener in males than in females, the proportion of confirmed cases, at the same time, is greater among males.

Notwithstanding all this, I am quite fully prepared to believe, if not to assert, that after the twentieth year or thereabouts, when the disease begins oftener to be due to certain causes in males, such as trauma, alcoholism, and syphilis, that the proportion of cures is somewhat higher among males than among females.

But up to the beginning of adult life, I should say there is no difference.

The Influence of the Mental Condition on Prognosis.—The physician, habituated for years to the daily study of large numbers of epileptics of all types, comes sooner or later to experience certain intuitive feelings and conclusions as to a patient's chances of recovery, through observation of the patient's mental condition alone.

There are types of epilepsy that destroy all the faculties of the mind within a very short while. There are other types, of frequent expression, that leave the mind but little impaired, even if the epilepsy exists from infancy to the end of the ordinary span of life. Again, there are epileptics who seem to manifest almost no mentality; not because it has been lost, but because of its subversion through powerful bromide drugging that has gone on uninterruptedly for years.

This was notably true in the case of the man who had 50,000 to 60,000 seizures before entering the colony, whose epilepsy had existed sixteen years, and who was accustomed to receive 120 or more grains of bromide daily, merely as a routine treatment. His mental condition on admission was most unsatisfactory, but it began to improve at once when the bromide was stopped.

Of late years the bromides have been far more rationally administered. Epileptics are seldom ad-

mitted to the colony at this time showing such distressing evidences of bromide intoxication we were accustomed to see so often six to eight years ago.

In a study of 1,364 cases we were struck with the undoubted relationship between the mental state, the age at the onset of the epilepsy, and the average duration of the disease.

Two hundred and forty-one patients, whose mental condition was described as "good," had an average age at the onset of their epilepsy of fourteen years, while the average duration of their disease was 9.8 years.

We parallel these with 97 epileptic imbeciles, whose average age at the onset of their epilepsy was 5.3 years, the average duration of their disease being eleven years and a half.

The rule, therefore, seems to be that the younger the patient when the epilepsy develops, the longer its duration without proper treatment, the more unsatisfactory the mental condition becomes.

The prognosis in epilepsy is always better when the mind in its essential elements is unimpaired.

Length of Time the Cases in Question Have Been Free from Attacks.—In this lies the very keystone of the arch of all that is valuable in the subject. I have previously given it as my belief that a person may be cured of epilepsy, and then have it again.

Epilepsy is not essentially different from insanity in this respect, notwithstanding the longer time it takes to cure it, and its lower percentage of cures at the present time.

Ten of the 34 cases I am reporting had gone, on January 1, 1904, five years or over, without an at-

tack (some of them, seven years and over); 7 had gone four years and over; 11, three years and over; while 6 had gone two years and over.

Some writers on epilepsy assume to fix a definite length of time an individual should remain free from attacks before he can be regarded as cured.

Turner, an English epileptologist of note, sets the time of freedom from attacks as a prerequisite of cure, at nine years. I think this is too long. The patient is apt to lose hope, a thing in itself that greatly hazards his recovery.

I do not see how any inflexible rule can be made to cover this point. The best we can do is to study the peculiarities of individual cases and fix a period in each case.

Some epileptics can be cured in from two to three years, in a way permanently to remain so; others can be cured only with the greatest difficulty in three to five years, and only with the greatest difficulty kept so.

It may be thought that the 34 recoveries I have here reported constitute a small percentage of the total number that have been under treatment at Sonyea. In explanation of this, I will say that one-half of the patients who have been admitted to the Craig Colony to this time have been regarded as wholly incurable at the time of their admission.

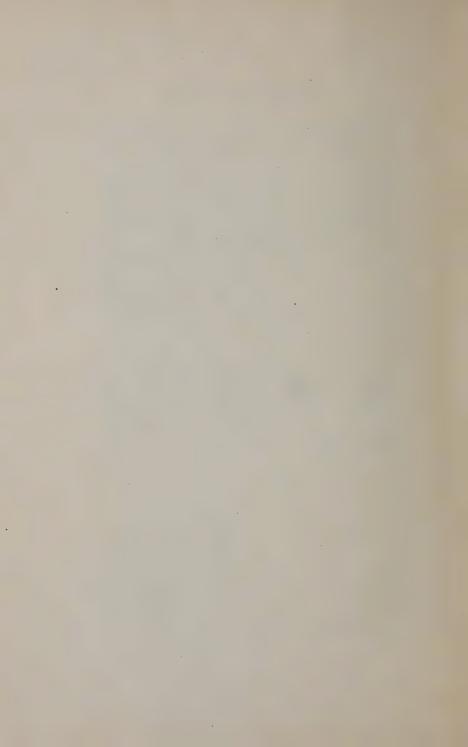
One half or more suffered from epileptic dementia, idiocy, or imbecility; their condition in all respects being so unsatisfactory as to render the possibility of cure out of question. After deducting 50 per cent. as unmistakably incurable, we have about 665 more or less chronic cases left, and

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it is from among these that the 34 recoveries have been effected. They constitute about 5 I-5 per cent. of the 665 possibly curable cases.

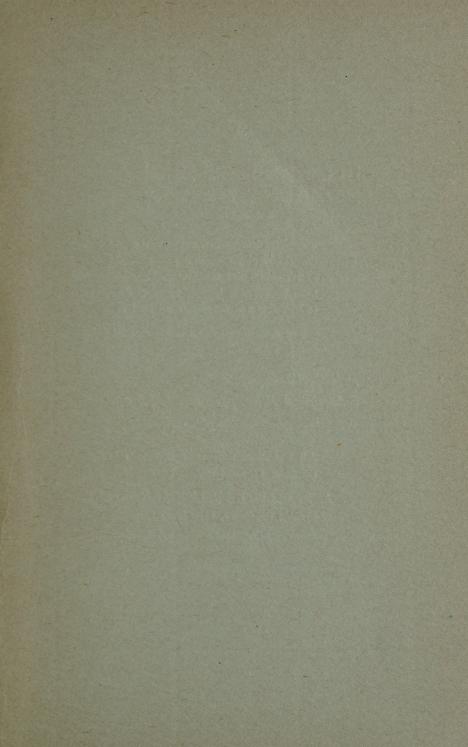
If a colony like Sonyea could get one half its patients before their epilepsy became chronic, and if it could have the almost unlimited resources found, or that should be found, in well equipped modern private sanitaria, including an ample corps of well paid physicians, each having from 20 to 30 patients only to treat in a day, instead of 125 to 150 or more, I am confident that the recoveries in epilepsy within a few years' time could be raised fully as high as they now are among the insane—that is 25 per cent. to 30 per cent. or more.

As a final word, I desire to reassert my unqualified belief in the curability of a disease there is too often failure to treat in the manner to attain the best results. Not only can it be cured, but not infrequently cases that are apparently most hopeless can be improved in a way to make them useful factors in a community's life.











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